

Increasingly complex products, manufacturing flexibility and high demands on quality assurance require intelligent, configurable and programmable sensors. To fulfill these demands, IO-Link streamlines the varying interfaces required to connect to a control system and tooling. A 3-wire connection can communicate process data (as single bits, bytes and data blocks for input and output data). It also communicates acyclic data (for identification, configuration, parameterization and diagnostics) with up to 230.4 kBaud to both sensors and actuators. The functions and performance data are defined via device description files for the IO-Link devices and can be easily customized via WAGO-I/O-CHECK or the WAGO IO-Link Configurator. If a device must be replaced, the configuration and parameterization can be automatically restored without maintenance personnel. This makes project design, installation and operation considerably simpler!

The module meets the IO-Link test specification V1.1.3 from January 2021.

Four different IO-Link devices, or even digital standard sensors/actuators, can connect to the WAGO 750-1657 IO-Link Master simultaneously. At just 12 mm (0.47 inch) wide, the module has three connections for each of the four channels.

Technical data	
Topology	4 IO-Link ports (point-to-point)
Sensor connection	4 x (3-wire)
Actuator connection	4 x (3-wire)
Supply current per port	Max. 0.3 A (max. 1 port up to 1 A)
Transmission modes	4.8 kBaud (COM 1), 38.4 kBaud (COM 2), 230.4 kBaud (COM 3)
Data width	4–48 bytes, configurable
Supply voltage (system)	5 VDC; via data contacts
Current consumption (5 V system supply)	52 mA
Supply voltage (field)	24 VDC (-15 ... +20 %); via power jumper contacts (power supply via blade contact; transmission (supply voltage field side only) via spring contact)
Current consumption, field supply (module with no external load)	11 mA
Isolation	500 V system/field

Technical data

Indicators	LED (1, 2, 9, 10) red/green: operating status C/Q 1 ... C/Q 4; LED (8) green: operating status IO-Link master; LED (16) red: group error
Number of incoming power jumper contacts	2
Number of outgoing power jumper contacts	2
Current carrying capacity (power jumper contacts)	10 A

Connection data

Connection technology: inputs/outputs	16 x Push-in CAGE CLAMP®
Connection type 1	Inputs/outputs
Solid conductor	0.08 ... 1.5 mm ² / 28 ... 16 AWG
Fine-stranded conductor	0.25 ... 1.5 mm ² / 22 ... 16 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 inches
Connection requirement (permissible cable length)	20 m

Physical data

Width	12 mm / 0.472 inches
Height	100 mm / 3.937 inches
Depth	69 mm / 2.717 inches
Depth from upper-edge of DIN-rail	61.8 mm / 2.433 inches

Mechanical data

Mounting type	DIN-35 rail
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Material data

Housing material	Polycarbonate; polyamide 6.6
Fire load	0.848 MJ
Weight	47.9 g
Conformity marking	CE

Environmental requirements

Ambient temperature (operation)	0 ... +55 °C
Ambient temperature (storage)	-40 ... +85 °C
Protection type	IP20
Pollution degree	2 per IEC 61131-2
Operating altitude	0 ... 2000 m / 0 ... 6562 ft
Mounting position	Horizontal left, horizontal right, horizontal up, horizontal down, vertical top and vertical bottom
Relative humidity (without condensation)	95 %
Vibration resistance	per IEC 60068-2-6
Shock resistance	15g per IEC 60068-2-27
EMC immunity to interference	per EN 61000-6-2, EN 61131-2
EMC emission of interference	per EN 61000-6-4, EN 61131-2
Exposure to pollutants	per IEC 60068-2-42 and IEC 60068-2-43
Permissible H ₂ S contaminant concentration at a relative humidity 75 %	10 ppm
Permissible SO ₂ contaminant concentration at a relative humidity 75 %	25 ppm

Environmental Product Compliance

CAS-No.	1303-86-2 1317-36-8 7439-92-1 75980-60-8
REACH Candidate List Substance	Lead Lead monoxide Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)- Diboron trioxide
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	6(c) 7(a) 7(c)-I 7(c)-II
SCIP notification number (Austria)	417e4afb-df33-4fe0-b956-b6feac0973dd
SCIP notification number (Belgium)	019effd5-7801-41ea-a4bf-b1afd4ced148
SCIP notification number (Bulgaria)	85f5d345-bf7c-46e0-b0ab-f63301f3cbb5
SCIP notification number (Czech Republic)	6ec46183-7e3e-461f-bee5-f79741fde24a
SCIP notification number (Denmark)	9bee9ae5-7fc8-4331-86c8-b67587ebb4d0
SCIP notification number (Finland)	b676605c-4bb8-41ec-9072-1545874fca71
SCIP notification number (France)	956001fd-676f-4082-a8c6-d2ff45777eed
SCIP notification number (Germany)	ca507305-84aa-4a29-be8f-42d8168ef012
SCIP notification number (Hungary)	d6d5c5dc-b3fe-4717-bd8e-f41e677b9bd2
SCIP notification number (Italy)	6ca0b994-b062-4f08-8c50-743c8123a061
SCIP notification number (Netherlands)	a6670b2f-7af5-4b1a-86d9-6a094492ac3a
SCIP notification number (Poland)	411abd2f-5a1d-4833-b95b-4ec37fe8030a
SCIP notification number (Sweden)	b59b76a1-8efa-479e-b711-9f191f556d3c

Approvals / Certificates

General approvals			Declarations of conformity and manufacturer's declarations		
Approval	Standard	Certificate Name	Approval	Standard	Certificate Name
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03083	EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
KC National Radio Research Agency	Article 58-2, Clause 3	MSIP-REM-W43-MSM750	UK-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-

Approvals for hazardous areas

Approval	Standard	Certificate Name
UL Underwriters Laboratories Inc. (HAZARDOUS LOCA- TIONS)	-	E198726

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 750-1657




Documentation

Manual

Product Manual 4-Port IO-Link Master	V 1.2.0 18.04.2024	pdf 5040.14 KB	
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System Description

750/753 Series I/O-System – General Product Information	pdf 953.35 KB	
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Overview on WAGO-I/O-SYSTEM 750 approvals	pdf 770.48 KB	
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Device Files

Device Driver

WAGO USB Service Kabel Treiber / Serie 750 und 857	6.5.3.0 10.09.2014	zip 4721.96 KB	
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Libraries

Library

Function blocks for the IO-Link module 750-657	1.0.4 07.09.2017	zip 444.88 KB	
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